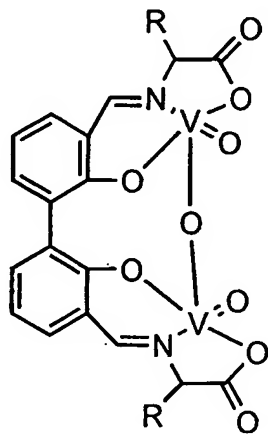


Appl. No. 10/518,118
Amdt. dated March 30, 2006
Reply to Office Action of January 6, 2006

In the Claims:

Please amend claims 1 and 10-14 as follows.

1. (Currently Amended) A chiral catalyst used for oxidative coupling of naphthols, comprising ~~which is a novel~~ vanadium complex of Schiff's base ~~formed by a~~ chiral amino acid and a formyl biphenol or its derivatives, ~~wherein it~~ hashaving the general formula:



where R represents a benzyl, an isopropyl, an isobutyl or a tertiary butyl and the configuration of the amino acid is *R* or *S*.

2. (Original) The chiral catalyst according to claim 1, wherein said R is a benzyl when the configuration of the amino acid is *S*.

3. (Original) The chiral catalyst according to claim 1, wherein said R is an isopropyl when the configuration of the amino acid is *S*.

4. (Original) The chiral catalyst according to claim 1, wherein said R is an isobutyl when the configuration of the amino acid is *S*.

5. (Original) The chiral catalyst according to claim 1, wherein said R is a tertiary butyl when the configuration of the amino acid is *S*.

6. (Original) The chiral catalyst according to claim 1, wherein said R is a benzyl when the configuration of the amino acid is *R*.

7. (Original) The chiral catalyst according to claim 1, wherein said R is an isopropyl when the configuration of the amino acid is *R*.

Appl. No. 10/518,118
Amdt. dated March 30, 2006
Reply to Office Action of January 6, 2006

8. (Original) The chiral catalyst according to claim 1, wherein said R IS an isobutyl when the configuration of the amino acid is *R*.

9. (Original) The chiral catalyst according to claim 1, wherein said R is a tertiary butyl when the configuration of the amino acid is *R*.

10. (Currently Amended) A process for preparing a chiral catalyst used for oxidative coupling of naphthols, ~~which consists of~~comprising the following steps:

- a. making a solution of ~~To water was solved~~ a chiral amino acid and sodium acetate dissolved in water;
- b. ~~A~~ adding a solution of ~~3,3'-bi-formyl-biphenol~~ 3,3'-diformyl-2,2'-dihydroxy-1,1'-phenyl in a mixed reagent of EtOH and THF ~~was added to the solution obtained by step a, and~~ stirring the reaction mixture ~~was stirred~~ for 1~3 hours at 70~90°C; and
- c. ~~An~~ adding an aqueous solution of 25% VOSO₄ ~~was added to the resulting mixture, then it was cooled~~ cooling it to ambient temperature; ~~after, then~~ stirring it for 1 ~3 hours; to produce the catalyst ~~was produced~~.

11. (Currently Amended) The process for preparing a chiral catalyst according to claim 10, ~~wherein in step a~~ further comprising stirring the solution of step a ~~was stirred for 5~ 15 minutes at 40~60 °e when a chiral amino acid and sodium acetate was solved to water~~ C.

12. (Currently Amended) The process for preparing a chiral catalyst according to claim 10, further comprising combining ~~wherein in step b the weight ratio of the mixed reagent to and 3'3-bi-formly —biphenol 3,3'-diformyl-2,2'-dihydroxy-1,1'phenyl is in a ratio of 20~25:1, and in the mixed reagent, combining the volume ratio of EtOH to THF is in a volume ratio of about 1: 1.~~

13. (Currently Amended) The process for preparing a chiral catalyst according to claim 10, wherein the molar ratio of the chiral amino acid, sodium acetate, water, 3'3-bi-formly-biphenol to VOSO_4 of steps a, b and c is 1.2:2.4:100~150: 0.5: 1.1.

14. (Currently Amended) A ~~use~~ method of using a chiral catalyst used for oxidative coupling of naphthol for the preparation of binaphthol or its

Appl. No. 10/518,118
Amdt. dated March 30, 2006
Reply to Office Action of January 6, 2006

derivatives, comprising catalyzing ~~wherein with~~ naphthol or its derivatives as ~~stating~~
~~material and~~ with oxygen as ~~an oxidize~~ oxidizing agent with, 1 ~ ~~1-0 mol %~~ 10 mol % of
the chiral catalyst ~~can catalyze the oxidative coupling reaction of claim 1~~ to produce
highly optically pure binaphthol or its derivatives.